INTEGRATED OFFENDER MANAGEMENT

TOOL WALK-THROUGH

Phase two: Conducting break-even analysis of Integrated Offender Management

Spreadsheet help contents

1.   Introduction

Upon opening the Efficiency Toolkit, the user is greeted by a **Welcome** page and an **Instructions** page. Together, these provide a brief introduction to the tool, its purpose and how it fits into the Phase Two Toolkit.

The **Instructions** page outlines the process the user will follow to fill in the data required to produce the summary reports.

Throughout the tool there are links to online resources which the user can access to help inform them on how to conduct efficiency analysis. Before using the tool, the user should make sure they are familiar with these resources and that they have read the accompanying economic evaluation "Handbook".

As a general rule, if a cell is highlighted in yellow or blue, then it contains a formula. Changing the content of these cells should be avoided unless the user wants to override the formula. Cells highlighted in white can, and generally should, be amended.

Break-even analysis - For break-even analysis the user should be comparing the costs of the previous offender management arrangements continuing (the baseline) to the costs of Integrated Offender Management (IOM) over the same time period.

The **Summary Break-Even Report** produced will present the difference between the costs under the baseline arrangements and IOM arrangements, based on the information provided for each of these scenarios.

Cost per managed offender - For cost per managed offender analysis the user should be comparing the cost per offender in a number of time periods before IOM to the cost per offender in the period of change, and a number of periods following the change.

The user should consider the cost per offender before IOM and under IOM separately. If the user is interested in comparing these scenarios, two **Summary Offender Cost Reports** should be produced. Each report will present either the costs associated with the previous offender management arrangements or associated with the IOM arrangements, based on the information provided for each of these scenarios.

INTEGRATED OFFENDER MANAGEMENT

Value for Money Toolkit   Version 1

This Tool is designed to complement the **Phase two: Conducting break-even analysis of Integrated Offender Management** document.

As Integrated Offender Management (IOM) is a framework, implementation varies across local areas depending on the needs of that area. This makes any assessment of the value for money of IOM nationally incredibly difficult. It is however possible for local areas to undertake economic evaluation of their own IOM arrangements if they wish to do so. It is hoped that by providing areas with this tool and associated economic evaluation handbook, they will be able to further strengthen the case for their local IOM arrangements by allowing them to quantify efficiency gains and demonstrating improved value for money (VFM).

This tool provides a framework to allow two complementary forms of analysis:
(i) **Break-even analysis;**
(ii) Analysis of the cost per managed offender.

Based on the data that is entered, this tool will produce a summary report of the analysis.

The economic evaluation document on how to carry out break-even analysis of IOM can be accessed by clicking on the "Handbook" button above. This spreadsheet tool should be used in conjunction with this document and it is recommended that the user reads it before using the tool as, in addition to advice on economic evaluation, it also provides details on the types of information that will have to be gathered in order to use the tool. Once the user has familiarised themself with the handbook and gathered the required information, they can begin to populate the tool. Practical instructions on how to use the tool in order to conduct each form of analysis can be found on the "Instructions" sheet. A link to this tab is provided below. This tab, the "Instructions" tab and the "Setup" tab also each contain a "Walk Through Guidance" button which will take the user to a practical help file containing support on how to fill in each of the sheets in the model. In the bottom left corner of each tab there is also a link to the next sheet to be filled in.

Important note: The analysis produced using this tool should not be seen as a substitute for a formal evaluation of the impacts of IOM on outcomes of interest (such as re-offending); instead it is a complementary technique. Where feasible, a formal impact evaluation would improve the robustness of the evidence base and enhance the case for IOM, and allow local areas to produce more detailed cost-benefit analysis.

Walkthrough Shortcut: Ctrl+Shift+W
Handbook shortcut: Ctrl+Shift+H

Instructions

Unit Costs shortcut: Ctrl+Shift+U

Note: As a general rule, if a cell is highlighted in yellow or blue, then it contains a formula. Avoid changing the content of these cells unless you are sure that you want to override the formula; the "Walk Through Guide" will explain when this might be appropriate. If a cell is white, then you may amend its content. Where relevant, to expand and collapse sections on a sheet use the "+" and "-" signs on the left-hand side of the sheet.

Figure 1: Welcome page

INTEGRATED OFFENDER MANAGEMENT TOOLKIT | Handbook | Walk Through Guide

This tool was launched on: Thu 08 Sep 2011 and has been operational for -30 days | Current User: Jamiesh5

Break-Even Analysis

Break-even analysis allows an assessment to be made on whether the potential additional positive outcomes generated as a result of a project or programme outweigh the cost. This will be the most suitable form of analysis when the cost of a programme is known and the value of the outcomes that are realised are also known, but there is no estimate of the impact of the intervention, or policy, on the outcome.

This tool and accompanying economic evaluation document provide a framework to allow partnerships to carry out break-even analysis of switching to IOM from previous forms of offender management. However, the techniques and framework can equally be applied to assessing the additional costs and benefits of specific changes to IOM.

For the purpose of this toolkit it will be assumed that it should be possible to estimate the costs associated with the management of offenders in the absence of IOM and those costs associated with IOM. From the costs of crime papers it is also possible to value the potential positive outcomes of IOM in terms of reduced crime. Therefore, it should be possible for IOM partnerships to carry out break-even analysis. This analysis will allow the estimation of how many additional crimes would have to be saved in a given time period in order to make the investment in IOM worthwhile.

Before beginning to use this tool, you should consult the accompanying economic evaluation document which sets out the principles underpinning break-even analysis in more detail. To access this document please click the "Handbook" button above.

A practical "Walk Through Guide" for the spreadsheet tool can be accessed by either clicking the button where it appears, or by using the shortcut **Ctrl + Shift + W** in any of the individual tabs in the tool. This walk through guide contains detailed support on the information the user is required to input for break-even analysis. In addition, below is a summary of the tabs relating to break-even analysis and the actions that can be performed in each tab.

To begin, please select the **Setup** tab and select **Break-even Report**. Additional support on the other information that is required on this page and all other pages can be accessed via the "Walk Through Guide".

Cost per Managed Offender Analysis

Cost per managed offender analysis will allow the user to compare the cost of the previous offender management arrangements and the associated volume of offenders managed, over a given time period, with the cost of offender management and the associated volume of offenders managed under IOM.

This will allow an assessment to be made as to whether the cost per managed offender has increased or decreased with the introduction of IOM. For more information on cost per managed offender analysis, please consult the accompanying economic evaluation document. To access this document please click the "Handbook" button above.

It will be up to the user to decide how the volume of offenders is defined and measured, depending on the analysis that they want to conduct.

Important note on cost per managed offender analysis: This analysis will give an indication of whether efficiencies have been made in terms of dealing with more offenders for the same amount of money, for example. However, it will not allow the user to say anything about the effectiveness of offender management in terms of the impact on reducing offending or crime.

A practical "Walk Through Guide" for the spreadsheet can be accessed by either clicking the button where it appears, or by using the shortcut **Ctrl + Shift + W** in any of the individual tabs in the tool. This walk through guide containing detailed support on the information the user is required to input for cost per managed offender analysis. In addition, below is a summary of the tabs relating to cost per managed offender analysis and the actions that can be performed in each tab.

To begin, please select the **Setup** tab and select **Cost Per Offender Report**. Additional support on the other information that is required on this page and all other pages can be accessed via the "Walk Through Guide".

Tab	Actions that can be performed on each tab
Setup	· Select partnership · Select unit of time, date of change, whether the price year refers to a financial or calender year, and the price year · Select discount rate and on-costs · Select type of costs of crime to be used (e.g. average total , average CJS etc.) · Select crime types of interest and insert crime weights
Staff	· Insert without change volumes and costs · Insert with change volumes and costs
Other Resource	· Insert without change volumes and costs · Insert with change volumes and costs

Tab	Actions that can be performed on each tab
Setup	· Select offender types · Select unit of time, date of change, whether the price year refers to a financial or calender year, and the price year · Select discount rate and on-costs · Change offender type names · Select whether interested in summary report based on the cost per offender under the pre-change environment or the post-change environment
Offender volumes	· Insert the volumes of each type of offender in each period under pre-IOM offender management arrangements and under IOM arrangements
Offender profiles	· Change offender weights
Staff	· Insert pre-change volumes and costs · Insert post-change volumes and costs
Other Resource	· Insert pre-change volumes and costs · Insert post-change volumes and costs

Once you have completed entering the information required for your analysis select the 'Summary Report' tab. You can also record your activity in the 'Activity Log'.

Note: As a general rule, if a cell is highlighted in yellow or blue, then it contains a formula. Avoid changing the content of these cells unless you are sure that you want to override the formula; the "Walk Through Guide" will explain when this might be appropriate. If a cell is white, then you may amend its content. Where relevant, to expand and collapse sections on a sheet use the "+" and "-" signs on the left-hand side of the sheet.

Contact: Reducing Re-Offending Unit | Email: IOM.Info@homeoffice.gsi.gov.uk

Figure 2: Instructions page

2. Break-even analysis

2.1 Setup

On the **Setup** tab, the first thing that the user must select is whether the user is interested in conducting break-even analysis or cost per offender analysis. If the user would like to produce a break-even analysis report, **Break-Even Report** should be selected. The worksheet tabs available will change depending on which analysis has been selected. The yellow summary report tab relating to the analysis chosen should appear at the bottom of the window. If it does not appear, the preferred type of analysis should be reselected.

Partnership	Barking and Dagenham
Partnership code	H01B
Region	London

Options	
Type of Cost of Crime	Average Cost (£) 2010
Date of Change	01 Jun 2013
⦿ Break-Even Report	⦿ Cost Per Offender Report
Notes	

Figure 3: Analysis selection

The **Setup** tab also contains a number of options that allow the user to customise the break-even analysis.

The user should select the appropriate **Partnership** from the dropdown box. The associated **Partnership code** and **Region** will then appear in the relevant boxes.

Partnership	Barking and Dagenham
Partnership code	H01B
Region	London

Figure 4: Partnership selection

Next, there are a number of other options that need to be chosen. The user **MUST** make these selections **BEFORE** filling in any information in the other tabs.

Options	Explanation
Unit of Time	To produce monthly analysis **Monthly Cost (£)** should be selected. To produce a report based on annual costs **Annual Cost (£)** should be selected. The spreadsheet allows for 10 periods to be considered, and these will reflect whether monthly or annual analysis has been chosen. The user does not have to use all 10 periods.
Financial/Calendar	If the **Annual Cost (£)** option is chosen, the user should then select how the years are displayed. If annual costs is selected, but the user would like

	to use 12 month periods that are not calendar or financial years (e.g. July to June), then the user may wish to select calendar year and note along with any analysis produced that the years relate to July to June, for instance, not calendar years. After changing the **Financial/Calendar** option, the user should reselect the **Price Year** and **Type of Cost of Crime** to ensure they are updated.
Price Year	The costs of crime used in the tool are in 2003 prices and need to be adjusted to account for changes in prices between different years. The user should select the year which is most relevant to the analysis being conducted. In most cases, this is likely to be the calendar year in which the costs of IOM are reported. By selecting the price year, the costs of crime values will automatically be updated to that particular year's prices. The user should make sure that all the costs that are entered into the **Staff** and **Other Resources** tabs also relate to the chosen price year. This is known as having the costs in 'constant prices'. For additional information on 'constant prices' the user should consult the accompanying "Handbook".
Type of Cost of Crime	The costs of crime allow the valuation of different categories of costs associated with different types of crime. The costs cover a range of costs to the victim and to society. The "**Average cost (£)**" is the sum of the component costs. Depending on the viewpoint from which the analysis is being conducted, the most appropriate type of costs should be selected. The most relevant type of cost is likely to be either the "**Average cost (£)**" of crime or the average "**Criminal Justice System**" cost. **Important:** Every time that the user changes the **Price Year** the **Type of Cost of Crime** should be reselected to update these figures.
Date of Change	The user should enter the date that corresponds with the introduction of IOM. For break-even analysis, this date will also correspond to the first period of the analysis.

	If the analysis is annual, the first month of the 12 month period being considered should be entered. Enter the start date in the format **DD/MM/YYYY**.

Unit of Time	Annual Cost (£)
Financial/Calendar	Calendar years
Price year	2010

Figure 5: Options selections (a)

Options	
Type of Cost of Crime	Average Cost (£) 2010
Date of Change	01 Jun 2013

Figure 6: Options selections (b)

In addition, there are a number of other variables that the user can change, but this is not advised without specific justification.

Variable	Explanation
HMT Discount Rate	If the costs are likely to span several years, the future values will have to be discounted to account for the fact that we value the future less than today. Unless there is reason to change it, the recommended annual discount rate is 3.5 per cent according to HM Treasury guidance (see p26 of the Green Book). This **HMT Discount Rate** will be reflected in the **Discount Rate** cell. The Discount Rate cell should not be changed. It will reflect the discount rate for the time period under consideration (e.g. annual or monthly)
On-Costs Mark up	On-costs are the additional employer contributions associated with employing someone. Unless there is reason to include a different rate of mark up, the general rate to use is 24 per cent. This will automatically be applied to salary costs entered in the spreadsheet. For additional details on on-costs consult the accompanying "Handbook".

Variables	
Discount Rate	3.5%
On-Costs Mark up	24%
HMT Discount Rate	3.5%

Figure 7: Options selections (c)

The **Break-Even Weights** section allows the user to select the crimes relevant to the break-even analysis. The user can either produce a break-even analysis

1. based on one crime type only; or,
2. based on a profile of crimes.

1. <u>One crime type</u> – A pre-loaded weight of 100 per cent should automatically be assigned to the chosen crime, if only one crime type is selected.

   If the user needs to reset the weights table for any reason the **Use Preloaded Crime Weights** button should be used.

   For example, if the user would like the crimes that would have to be saved in the break-even analysis to refer solely to burglary in a dwelling, then only this box should be selected. The **Summary Break-Even Report** will then return a break-even analysis based on 100 per cent of the savings required in terms of reduced domestic burglary. Therefore, if the annual additional staff and other resource expenditure associated with IOM equalled £506,200 and the uprated cost of a domestic burglary was £3,833, 132 additional burglaries would have to be saved in that year in order to make the investment in IOM worthwhile.

Break-Even Weights	2009	2010	2011	2012	2013
☐ Violence against the person					
☐ Homicide					
☐ Wounding					
☐ Serious Wounding					
☐ Other Wounding					
☑ Sexual Offences	100.0	100.0	100.0	100.0	100.0

Figure 8: One crime type with a weight of 100 in every period

2. <u>Profile of crime types</u> – If the user would like to produce a break-even analysis based on more then one crime type then the model requires the use of weights to apportion the additional spend to the relevant crime types reflecting the relative importance of different crimes to the user's area. There are two ways to apportion any additional spend to the relevant crime types being considered. The first is to use the preloaded crime weights and the second is for the user to insert their own weights manually.

Break-Even Weights	2009	2010	2011	2012
☑ Violence against the person	28.1	28.0	28.0	28.0
☐ Homicide				
☐ Wounding				
☐ Serious Wounding				
☐ Other Wounding				
☑ Sexual Offences	66.0	65.2	65.2	65.2
☐ Common Assault				
☑ Burglary - In a Dwelling	5.9	6.8	6.8	6.8

Figure 9: Profile of crimes with proportional weights adding to 100.

i. *Use preloaded weights* - By selecting the box next to the particular crime type, the user chooses to include this crime type in the analysis. Once the crimes that the user would like to include are chosen, the user should click the **Use Preloaded Crime Weights** button to allocate a weighting to each crime type based on that particular crime type's relative share of the total harm caused (in terms of total cost) by all the crime types selected[1]. The break-even analysis will then apportion the additional IOM spend according to this weighting, on the assumption that the weighted proportion of total crime harm is equivalent to the weighted proportion of total IOM spend.

☑ Burglary - In a Dwelling	40.2	50.1	50.1	50.1
☑ Personal - Robbery	59.8	49.9	49.9	49.9

Figure 10: Example crime selection

For example, if robbery-personal is selected along with burglary in a dwelling, a price year of 2009 and a start date of 2009, if the user then clicks the **Use Preloaded Crime Weights** button it will apportion 59.8 per cent of the additional spend in 2009 to robbery-personal and 40.2 per cent to burglary in a dwelling reflecting the fact that robbery imposes a higher cost on society and 49.9 percent 50.1 percent respectively in 2010 and all future years[2].

If the user needs to reset the weights table for any reason the **Use Preloaded Crime Weights** button should be used.

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[1] The pre-defined weights relate to the relative harm caused by selected crimes. Relative harm is defined here as relative total cost, which is the combination of the total volume of each type of crime and the unit cost. As we are concerned with the harm caused by total crime and not all crime is recorded, multipliers are required to 'gross up' from recorded crime to total crime for each crime type. The multipliers used to construct the weights in the model are based on the methodology used in Home Office Online Report 30/05 and Home Office Research Study 217.

[2] For each year before and including the present year, the pre-loaded weights relate to the relative total harm specific to that year. The relative weights used for all future years equal those for the present year.

ii. *Use custom weights* – If the user would like to assign their own weights rather than use the preloaded weights, this can be done by entering the weights manually into the yellow boxes in the **Break-Even Weights** section. Simply enter the weights for each of the crime types of interest for each of the time periods.

For example, if the user knows that 20 per cent of the harm caused through crime committed by offenders covered by offender management in their area each year is robbery-personal and 80 per cent is burglary in a dwelling then enter these figures into the appropriate boxes for each time period. This will mean that the break-even analysis generated will be based on 20 per cent of any additional IOM spend being attributed to robbery-personal and 80 per cent to burglary in a dwelling. It will calculate the number of each crime that would have to be saved in order to make the additional spend worthwhile based on these proportions.

Note: the user must ensure that total always sums to 100 per cent in a given period.

Where the user chooses to insert their own weights, rather than the preloaded weights, the cells will be coloured orange (rather than yellow).

If the user needs to reset the weights table for any reason the **Use Preloaded Crime Weights** button should be used.

Adding and removing custom crime or other outcome types
The crime types in the pre-defined list are those for which there are costs of crime estimates. If the user has information locally on the costs of other types of crime (for example the average cost of a drug possession offence or fraud) and the user would like to carry out break-even analysis based on these particular crime types, additional crime types can be added to the **Break-Even Weights** table.

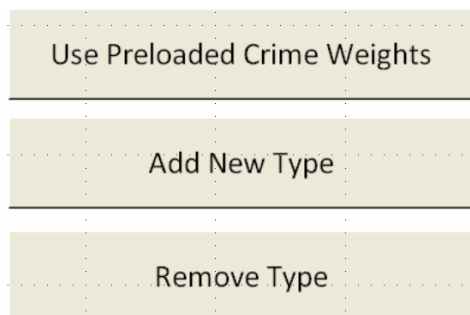In order to do this the user will have to first click the **Add New Type** button.

Figure 11: Break-even weights buttons

Next, a name for the new crime type should be entered → Click "OK"
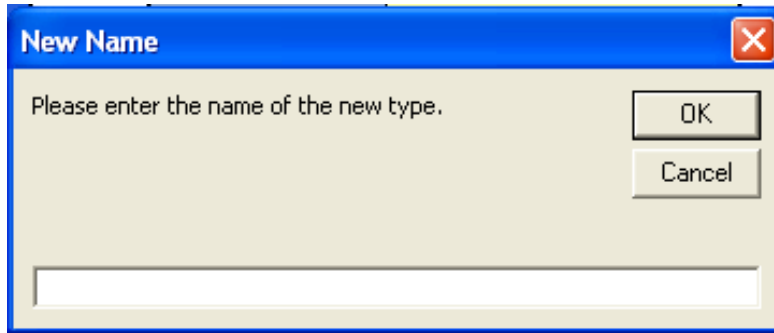
Figure 12: Name the new crime type

→ Click "Yes"
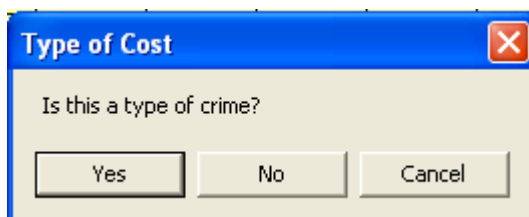
Figure 13: Confirm this is a new crime.

→ Enter each component part of the average unit cost for that crime type and click "OK"[3].
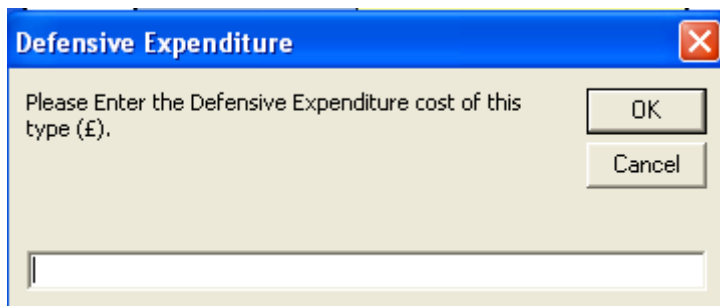
Figure 14: Enter the unit costs for each component of the average cost

If not all the cost components are relevant to the crime type that the user is including, the specific category should be entered as 0. It should not be left blank.

The average unit cost for the new crime type should also be entered. The user should ensure that this is the sum of the component parts.

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[3] The types of costs that the user will be asked to enter match the component costs covered in the Home Office costs of crime publications. For additional information on these types of costs please consult Home Office Online Report 30/05 and Home Office Research Study 217. Be aware that the value entered as the property stolen or damaged should be less the value of any property recovered. These types of costs are also reflected in the "Type of Cost Of Crime" selection box on the Setup tab.

If the component costs are not known, the user should enter each as 0 and only enter an average unit cost.
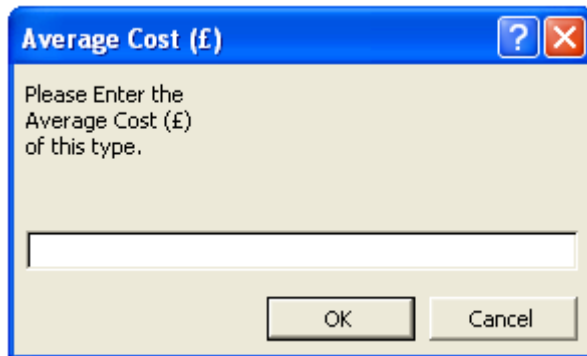
Figure 15: Enter the average cost

Important note: when adding in a new crime type, the costs entered should relate the chosen price year. The price year should be chosen before entering a custom crime type.

Once the crime type has been added, the box next to it should be selected to include it in the analysis. If a custom crime type is included, the user will have to manually assign custom weights and the weights should add to 100 per cent in each time period. If the user includes only one crime type in their analysis and that one crime type is the custom crime, then the weight in each period should be entered as 100 per cent. If the user includes more than one custom crime type, or one custom crime type and any pre-defined crime type, then the user MUST enter custom weights for each selected crime and the weights should add to 100 per cent.

If the user would like the analysis to relate to an outcome measure that is not crime, non-crime outcomes can also be added to the **Break-Even Weights** table. The beginning of the process to add a new outcome type is the same as to add a new crime type:

Click the "Add new type" button → Enter a name for the new outcome type → Click "OK"

However, the user should then click "No" and enter the average cost for the outcome type before clicking "OK". For non-crime outcomes, the user will only be asked for the average cost rather than a range of component costs.
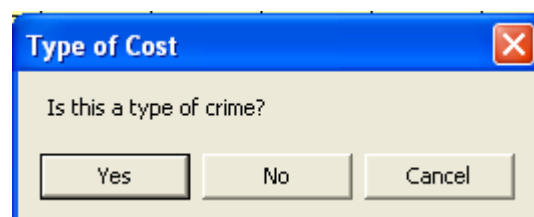
Figure 16: Click "No" for new non-crime categories

Once the user has added the new outcome type the box next to that outcome type should be selected to include it in the analysis. The user will have to include custom weights when including custom outcome types and the weights should add to 100 per cent in each time period. If the user only includes one custom outcome type in the analysis then the weight in each period should be entered as 100 per cent. If the user includes more than one custom outcome type then the user MUST enter custom weights for each selected outcome and the weights should add to 100 per cent. The user should not use a profile of crime and non-crime outcome types.

Figure 17: Crime and non-Crime types cannot be selected simultaneously

When using non-crime outcomes the **Type of Cost of Crime** should be set to **Average Cost (£)**

To remove a custom crime or outcome type the user should click **Remove type**, and then enter the name of the type to be removed, before clicking "OK". The box next to the removed outcome type should also be deselected and the manually inserted weights will have to be removed. Please note that the **Remove type** capability is case sensitive.

Figure 18: Remove unwanted categories

> **Important notes on Break-Even Weights section**:
> - If the user wants to produce analysis based on more than one crime type, it will **not be possible to use a mix of preloaded and custom weights**: the user should either use the pre-loaded weights or custom weights.
> - Using the preloaded weights will ensure that the weights add up to 100 per cent in each time period. However, if **custom weights** are included the user must ensure that the weightings add up to **100 per cent** in each time period. The user will not be able to choose a mixture of crime and non-crime types for their analysis.

- Those crime types that are indented are subgroups of the crime types that come before them. Where a specific crime sub-groups is selected the user should not also select the crime group to which these sub-groups belong and vice versa. Doing so will result in inconsistent weights being assigned. For example, serious and other wounding are sub-groups of wounding, and wounding and homicide are sub-groups of violence against the person. If the user chooses to use the violence against the person weight, the homicide and wounding weights cannot also be selected. Similarly, if the user chooses to include the serious and other wounding weights and the homicide weight, the user cannot also select to include the wounding or violence against the person weights.
- Be aware that for the aggregate crime categories – wounding, violence against the person and personal-theft – the weights are based on the weighted average unit costs of the crime types that make up that aggregate crime in the price year chosen. These weighted unit costs for the price year chosen are applied to the total crime volumes in each specific year in order to estimate the weights. This will mean that the weights and unit costs for these aggregate categories will be slightly different to those you would expect if you were generating separate weighted average unit cost for each year considered in that specific year's prices. The effect of this on the analysis should be small, but some sensitivity analysis should be undertaken. Where possible, the disaggregated crime types should be used.
- If the user intends to use a profile of offences that contain both pre-defined crime types and **custom crime types** (e.g. drug possession and burglary in a dwelling) for their analysis, **customised relative weights** must be attached to each crime type. The user must make sure that these weights sum to 100 per cent in each time period. The user must also ensure that the unit costs of each chosen crime are expressed in the same terms. That is to say, the pre-defined costs of crime estimates are meant for use with actual crime volumes (including those that are recorded and unrecorded); therefore, if the user is including both pre-defined and custom crime types the custom crime type unit costs must also be expressed per actual crime, NOT per recorded crime or per conviction.
- The user can only remove custom weights, not pre-defined weights.

The user should record any important information related to the setup of their analysis in the space provided for **Notes**. For example, if the user chooses to include custom weights in the **Break-Even Weights** section the user may wish to note the reason for using these weights and the evidence on why the values of the weights chosen are appropriate.
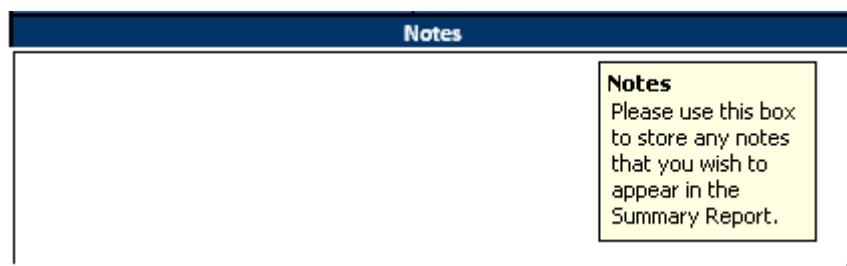
Figure 19: Use the notes box to record any relevant information for the summary reports

2.2 Staff

For break-even analysis, the user should only be interested in the additional staff costs associated with IOM, over and above the costs of the pre-existing offender management arrangements continuing (the baseline). In order to work this out, it will be necessary to enter information on the number of staff and the cost of each of these staff under previous offender management arrangements and the number and cost of staff under IOM arrangements, over the same time period.

The **Staff** tab will allow the user to enter all the necessary information relating to the pro-rata staff costs of previous offender management arrangements continuing and of IOM. Additional information on the types of costs the user may wish to include in the relevant sections can be found in the accompanying economic evaluation document.

The spreadsheet allows the user to consider 10 time periods, the first of which should correspond with the introduction of IOM. The user does not have to include all 10 periods; however, the same periods should be considered under both the without and the with change scenarios. For example, if IOM was introduced in 2009 and the user wants to consider break-even analysis over 5 periods, then the estimated staff costs associated with continuing the previous offender management arrangements should be estimated from 2009 to 2013, and the staff costs of providing IOM from 2009 to 2013 should also be included.

Adding staff types
<u>Number of staff</u>
This **Staff** tab includes a number of tables: the first set refer to **Without change – Number of staff**; **With change – Number of staff** and **Additional – Number of staff**. The user should enter the estimated number of each type of staff involved in offender management had pre-existing arrangements continued to the **Without change – Number of staff** table, and the number of each type of staff associated with each agency under IOM arrangements to the **With change – Number of staff** table. The tool will then automatically calculate the additional number of each type of staff associated with the change. The without change volume of staff for each of the agencies involved in providing the previous offender management arrangements should be estimated by extrapolating forward pre-existing trends in the volumes of staff. For example, if 2 probation officers were employed in offender management

every year for the 5 years prior to the change, and the user expected this to continue for the next 5 years then the user should include 2 probation officers in each year in the baseline.

In order to add a member of staff to this table the user should first click on the **Add/Remove Staff** button.

Add/Remove Staff	Edit Staff and Agency Names	Edit Unit Costs
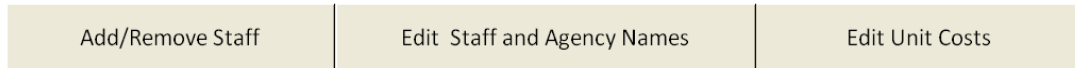
Figure 20: Staff page buttons

Then, after checking that "Staff" is selected at the top of the form, the user should:

Select Agency (using drop down box) → Select "New" from Select Staff dropdown box→ Click "Add" → Define the name of the staff member → Click "Add" → Click "Yes"
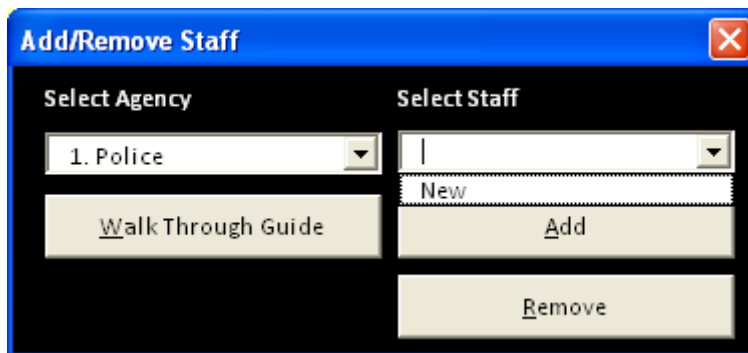
Figure 21: Add a new staff type

This will generate a row relating to the specific agency/staff combination in each of the tables. The user should insert the pro-rata staff volumes associated with each period under the without change conditions and under the with change conditions in the appropriate tables. For all staff defined, the pro-rata Full Time Equivalent values allocated to offender management/IOM over the relevant time frame should be inserted.

Once the user has added a type of staff member to one agency, that type of staff can be added to any of the different agencies. To do this, the user should:

Select Agency (using drop down box) → Select relevant staff type from Select Staff dropdown box→ Click "Add"

All the types of staff associated with each of the different agencies should be added. Where a specific type of staff is only relevant to either the pre-existing arrangements or the IOM arrangements then the cells relating to the other scenario should be left blank. For instance, if under IOM one drugs worker is employed each year, but under the previous arrangements none would have been employed, then the volumes should be left blank in the without change

section of the table and 1 should be included in the relevant boxes in the with change section.

If the user would like to customise the names of the agencies, or change the name of any of the members of staff included, then this can be done using the **Edit Staff and Agency Names** button.

There are two options on the form: **Staff** and **Agencies**.

Agencies – there are a set of predetermined agencies included in the model that may be involved in offender management in an area. If the user would like to customise the names of these agencies, the user should:

Select "Agencies" → Select name of agency → Select "Rename Selected" → Change name in text box [make sure this is not left blank] → "Accept Change"

Note: The user should ensure that none of the agencies are left completely blank. If the user wants to remove irrelevant agencies **the number should be left** so that space for up to 9 agencies in maintained.

Staff – In order to change any of the names of the staff types entered, the user should:

Select "Staff" → Select name of staff → Select "Rename Selected" → Change name in text box [make sure this is not left blank] → "Accept Change"

Note: The user should ensure **the staff name is not left blank**. The **Edit Staff and Agency Names** button is only to alter the name, if the user would like to remove a staff member, the **Add/Remove Staff** button should be used. There are additional details below on how to remove staff.
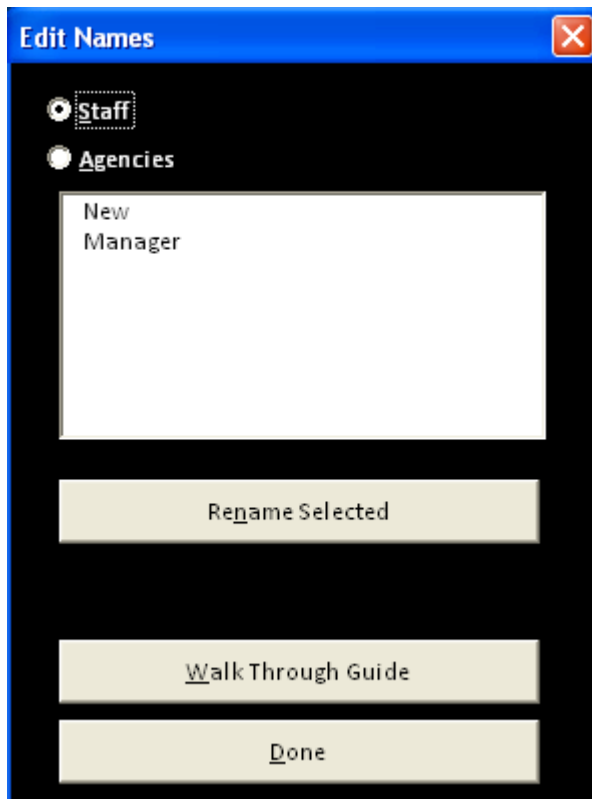
Figure 22: Edit staff and agency names

When the user changes the names of the agencies, or staff, the changes are implemented throughout the tool.

Cost of staff
Once the staff volumes have been added, the user should add the unit costs associated with each staff type. The unit costs will automatically be combined with the volumes of staff to populate the next set of tables relating to **Without change – Cost of staff**; **With change – Cost of staff** and **Additional – Cost of staff**.

The user will be able to include a number of different costs in relation to each staff/agency combination. In order to do this, the user should select **Edit Unit Costs**, which will bring up a form where all associated costs can be entered.

After selecting **Edit Unit Costs**, the user should:

Select Agency → Choose Staff member from dropdown list → Fill in the **Without a Change** costs boxes → Fill in the **With a Change** cost boxes → Click "Done"

Figure 23: Edit unit cost dialog

For the **Without a Change** boxes the user should include the annual **Salary**, any other **Additional Costs (Recurring)** and any **Additional Costs (One-off)**. On-Costs will be calculated automatically based on the mark-up on the **Setup** sheet and added to the annual **Salary**. The **Annual Cost** and **Monthly Cost** will be generated automatically and these figures will reflect the **Salary** plus on-Costs.

Additional Costs (Recurring) allows the user to add any other costs associated with each staff member in each period. The user should ensure that these costs do not double count costs already incorporated in the on-cost mark up (e.g. NI contributions).

To add any **Additional Costs (One-off)** the user should select the **Include One-Off Cost?** box. This will allow the user to insert a one-off cost and select the time period to which it relates. The one-off cost will be dependent on the volume of staff entered in the chosen time period.

For the **With a Change** boxes the same types of costs should be included as were included for the **Without a Change** costs: **Salary**, any other **Additional Costs (Recurring)**, along with any **Additional Costs (One-off)**. However, in addition, the user will be able to add any **Transition Cost** associated with implementing the change. This cost will be added to the first time period in the

analysis, whether that is monthly or annual and it will be independent of the volume of staff.

STAFF COSTS
Add/Remove Staff
Edit Unit Costs
Edit Staff and Agency Names

WITHOUT CHANGE - Number of staff

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
1. Police	Staff										
	constable	1	1	1	1	1	1	1	1	1	1
2. Probation	Staff										
	probation officer	3	3	3	3	3	3	3	3	3	3
3. Prison	Staff										
4. Local Authority	Staff										
5. Youth Offending	Staff										
6. Offender Health	Staff										
7. Drug Services	Staff										
	drugs support worker										
8. Voluntary Sector	Staff										
9. Other (eg Housin	Staff										

WITHOUT CHANGE - Cost of staff

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
1. Police	Staff										
	constable	£43,472.86	£43,472.86	£43,472.86	£43,472.86	£43,472.86	£43,472.86	£43,472.86	£43,472.86	£43,472.86	£43,472.86
2. Probation	Staff										
	probation officer	£93,156.13	£93,156.13	£93,156.13	£93,156.13	£93,156.13	£93,156.13	£93,156.13	£93,156.13	£93,156.13	£93,156.13
3. Prison	Staff										
4. Local Authority	Staff										
5. Youth Offending	Staff										
6. Offender Health	Staff										
7. Drug Services	Staff										
	drugs support worker	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00
8. Voluntary Sector	Staff										
9. Other (eg Housin	Staff										

Figure 24: Staff – Without change staff volumes and costs tables

WITH CHANGE - Number of staff

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
3	3	3	3	3					
3.5	3.5	3.5	3.5	3.5					
1	1	1	1	1					

WITH CHANGE - Cost of staff

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
£130,418.58	£130,418.58	£130,418.58	£130,418.58	£130,418.58	£0.00	£0.00	£0.00	£0.00	£0.00
£108,682.15	£108,682.15	£108,682.15	£108,682.15	£108,682.15	£0.00	£0.00	£0.00	£0.00	£0.00
£24,841.63	£24,841.63	£24,841.63	£24,841.63	£24,841.63	£0.00	£0.00	£0.00	£0.00	£0.00

Figure 25: Staff – With change staff volumes and costs tables

ADDITIONAL - Number of staff									
2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
2	2	2	2	2	0	0	0	0	0
0.5	0.5	0.5	0.5	0.5	0	0	0	0	0
1	1	1	1	1	0	0	0	0	0

ADDITIONAL - Cost of staff									
2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
£86,945.72	£86,945.72	£86,945.72	£86,945.72	£86,945.72	£0	£0	£0	£0	£0
£15,526.02	£15,526.02	£15,526.02	£15,526.02	£15,526.02	£0	£0	£0	£0	£0
£24,841.63	£24,841.63	£24,841.63	£24,841.63	£24,841.63	£0	£0	£0	£0	£0

Figure 26: Staff – Additional staff volumes and costs tables

Important notes on adding staff costs:

- If the same type of staff is associated with different agencies then a separate unit cost should be added for each agency/staff combination. For example, if an administrator is associated with both Police and Probation, then a separate cost will have to be added for each.
- If there are similar staff types, but the cost associated with each is different, then the user should differentiate between them. For instance, if the Police employ two police officers, but one is a sergeant and the other a constable then these should be added separately.
- The user should ensure that the correct Agency/Staff combination is selected before inserting the unit costs. For example, if the user has added a police (constable) to the Police on the staff sheet, "Police" should be selected from the Agency list and "police (constable)" from the Staff list when adding the unit cost on the **Edit Unit Costs** button.
- The user can enter a single set of overall cost figures for each agency, for example "Police staff". In this case the user should still create a staff type called "Staff", for example, for the relevant agencies. However, instead of filling in the **Edit Unit Costs** form, the user should then enter the total costs directly into the relevant white cells generated in the total cost tables. The user should not write directly into the yellow cells as they do not feed through to the summary report.

Removing staff

In order to remove a type of staff associated with a particular agency from this table first click on the **Add/Remove Staff** button. Then:

Select Agency → Select Staff → Click "Remove"

2.3 Other resource costs

For break-even analysis, the user will only be interested in the additional other resource costs associated with the change to IOM In order to work this out, it will be necessary to enter information on the volume of other resources and the cost of each of these under previous offender management arrangements and the number and cost of other resources under IOM arrangements, over the same time period.

The **Other Resources** tab will allow the user to enter all the necessary information relating to the other resource costs of previous offender management arrangements continuing and of IOM. The user can find additional information on the types of costs to include in the relevant sections of the accompanying economic evaluation document.

The spreadsheet will allow the user to consider 10 time periods, the first of which should correspond with the introduction of IOM. The user does not have to use all 10 periods; however, the same periods should be considered under both the without and the with change scenarios. For example, if IOM was introduced in 2009 and the user wants to consider break-even analysis over 5 periods, then the estimated other resource costs associated with continuing the previous offender management arrangements should be estimated from 2009 to 2013, and the other resource costs of providing IOM from 2009 to 2013 should also be included .

Adding other resource types

Volume of resources
The **Other Resources** tab includes a number of tables: the first set refers to **Without change – Volume**; **With change – Volume** and **Additional – Volume**. The user should enter the estimated volume of each type of other resource used assuming the previous form of offender management had continued in the **Without change – Volume** table, and the number of each type of other resource associated with each agency under IOM to the **With change – Volume** table. The tool will then automatically calculate the additional volume of each type of other resource associated with the change. The without change volume of resources for each of the agencies who were involved in providing the previous offender management arrangements should be estimated by extrapolating pre-existing trends in the volumes of other resources forward. For example, if probation rented 0.25 of a building annually in relation to offender management prior to the change, and the user expected this to continue for the next 5 years then the user would include 0.25 of a building in each year in the baseline.

In order to add a resource type to this table the user should first click on the **Add/Remove Other Resource** button.

Figure 27: Resource page options

Then, after checking that "Resource" is selected at the top of the form, the user should:

Select Agency → Select "New" → Click "Add" → Define the name of the other resource → Click "Add" → Click "Yes"
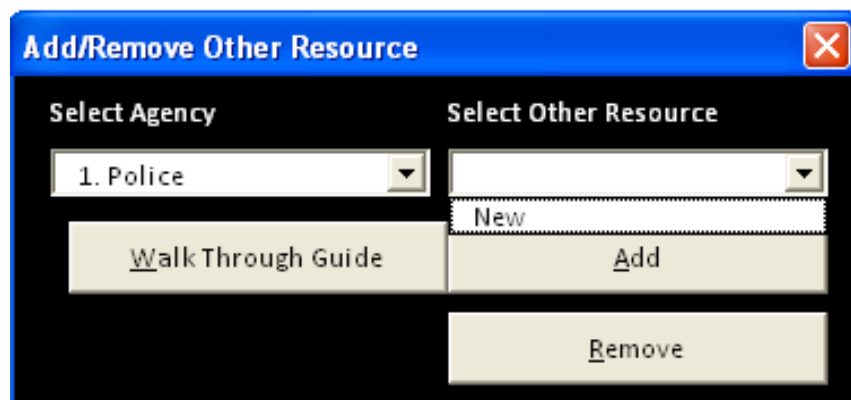
Figure 28: Add new resource type

Adding a resource will generate a row relating to the specific agency/other resource combination in the tables. Depending on the type of other resource cost being added, the volumes should be entered differently:

For **fixed resource costs** – those that will not change or depend on the number of staff /offenders in the short term (e.g. accommodation etc.) – the volume inserted should be the pro-rata amount used under previous offender management arrangements/IOM arrangements (e.g. 0.5 of a building).

For **variable resource costs** – those that will change depending on the volume of staff/offenders (e.g. drug testing kits, IT licenses) - the volume required in each period under previous offender management arrangements and under IOM arrangements should be included (e.g. 20 drug testing kits per period under IOM).

Once the type of other resource has been added to one agency, it can then be added to any of the other agencies. To do this, the user should:

Select Agency (using drop down box) → Select relevant resource type from Select Other Resource dropdown box→ Click "Add"

All the types of other resource associated with each of the different agencies should be added. Where a specific type of resource is only relevant to either the pre-existing arrangements or the IOM arrangements then the cells relating to the other scenario should be left blank. For instance, if under IOM drug testing becomes routine, but under the previous arrangements drug testing would not have been undertaken, a certain volume of drug testing kits will be required per period under the new arrangements; however, the volumes should be left blank in the without change section of the table.

If the user would like to customise the names of the agencies, or change the name of any of the other resource costs included, this can be done using the **Edit Other Resources and Agency Names** button.

There are two options on the form: **Other Resources** and **Agencies**.

Agencies – there are a set of predetermined agencies included in the model that may be involved in offender management in an area. If the user would like to customise the names of these agencies, the user should:

Select "Agencies" → Select name of agency → Select "Rename Selected" → Change name in text box [make sure leave the number] → "Accept Change"

Note: Users should ensure that if an agency name is customised, the name is not left completely blank. If the user wants to remove irrelevant agencies, the number should still be left in order to maintain space for up to 9 agencies in future.

Other Resources – In order to change any of the names of the other resource types entered the user should:

Select "Other Resources" → Select name of other resource → Select "Rename Selected" → Change name in text box [make sure this is not left blank] → "Accept Change"

Note: The user should ensure **the other resource name is not left blank**. The **Edit Other Resources and Agency Names** button is only to alter the name, if the user would like to remove a resource type, this should be done using the **Add/Remove Other Resource** button. There are additional details below on how to remove other resources.
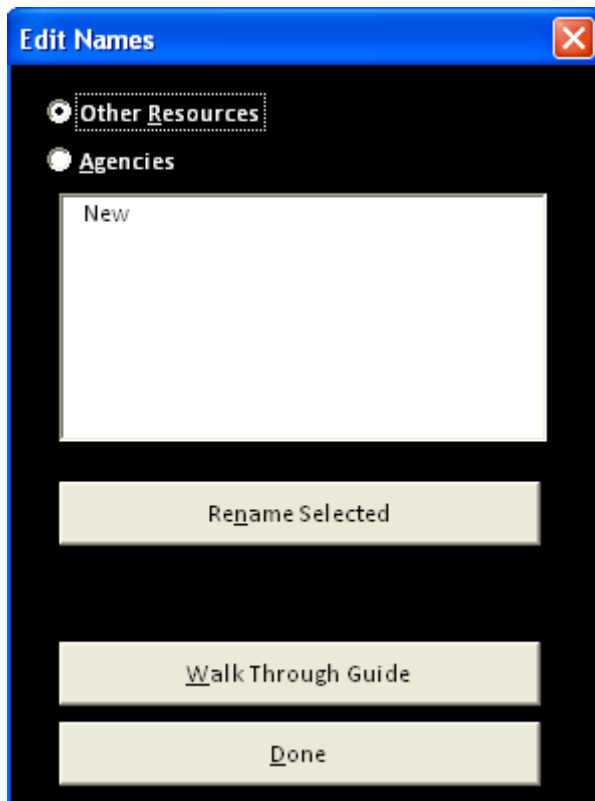
Figure 29: Edit resource and agency names

When the user changes the names of the agencies, or types of resources, the changes are implemented throughout the tool.

Cost of other resources
Once the volumes have been added, the user should add the associated unit costs for each of the resource types. The unit costs will automatically be combined with the volumes of other resources in order to populate the next set of tables associated with the **Without change – Cost**; **With change – Cost** and **Additional – Cost**.

The user will be able to include a number of different costs in relation to each other resource/agency combination. In order to do this, first select **Edit Unit Costs** which will bring up a form where all associated costs can be entered.

After selecting **Edit Unit Costs**, the user should:

Select Agency → Choose resource type from dropdown list → Fill in the **Without a change** cost boxes → Fill in the **With a change** cost boxes → Click "Done"

Figure 30: Edit unit cost dialog

For the **Without a Change** costs boxes the user should include the relevant type(s) of cost for the volumes included. For volumes of resources that are fixed in the short term (e.g. accommodation) the associated **Fixed Annual Cost of Resource** should be included (e.g. annual rent or mortgage costs).

The **Annual Cost** and **Monthly Cost** will be generated automatically and these figures will reflect the **Fixed Annual Cost of Resource**.

If the cost of the particular type of resource is variable (e.g. IT licence) then the **Variable Cost of Resources (unit cost)** should be inserted.

To add any **Other one-off cost** the user should select the **Include One-Off Cost?** box. This will allow the user to insert a one-off cost and select the time period to which it relates. The one-off cost will be dependent on the volume of that other resource entered in that time period.

For the **With a Change** costs boxes the user should include the same types of costs as were included for the **Without a Change** costs: **Fixed Annual Cost of Resource** or **Variable Cost of Resources**, along with any **Other one-off costs**. However, in addition, the user will be able to add any **Transition Cost** associated with implementing the change. The transition cost

will be added to the first time period in the analysis, whether that is monthly or annual.

Once the unit costs associated with each of the agency/other resource combinations have been entered the total value of each type of cost will be calculated in the cost tables.

OTHER RESOURCES		TO INSERT A NEW ENTRY PLEASE USE THE BUTTONS ON THE LEFT									
Add/Remove Other Resource		DO NOT ENTER INFORMATION INTO YELLOW BOXES, AS THESE WILL NOT BE FED INTO THE SUMMARY REPORTS									
Edit Unit Costs		**Note:** As a general rule, if a cell is highlighted in yellow or blue, then it contains a formula. Avoid changing the content of these cells unless you are sure that you want to override the formula; the "Walk Through Guide" will explain when this might be appropriate. If a cell is white, then you may amend its content. Where relevant, to expand and collapse sections on a sheet use the "+" and "-" signs on the left-hand side of the sheet.									
Edit Resource and Agency Names		WITHOUT CHANGE - Volume									
		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
1. Police	Other Resource										
	Building (rent)	0.5	0.5	0.5	0.5	0.5					
2. Probation	Other Resource										
3. Prison	Other Resource										
4. Local Authority	Other Resource										
5. Youth Offending	Other Resource										
6. Offender Health	Other Resource										
7. Drug Services	Other Resource										
8. Voluntary Sector	Other Resource										
9. Other (eg Housin	Other Resource										
		WITHOUT CHANGE - Cost									
		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
1. Police	Other Resource										
	Building (rent)	£50,000.00	£50,000.00	£50,000.00	£50,000.00	£50,000.00	£0.00	£0.00	£0.00	£0.00	£0.00
2. Probation	Other Resource										
3. Prison	Other Resource										
4. Local Authority	Other Resource										
5. Youth Offending	Other Resource										
6. Offender Health	Other Resource										
7. Drug Services	Other Resource										
8. Voluntary Sector	Other Resource										
9. Other (eg Housin	Other Resource										

Figure 31: Other resources – Without change volume and cost tables

WITH CHANGE - Volume									
2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
0.25	0.25	0.25	0.25	0.25					
150	140	130	120	100					

WITH CHANGE - Cost									
2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
£25,000.00	£25,000.00	£25,000.00	£25,000.00	£25,000.00	£0.00	£0.00	£0.00	£0.00	£0.00
£3,000.00	£2,800.00	£2,600.00	£2,400.00	£2,000.00	£0.00	£0.00	£0.00	£0.00	£0.00

Figure 32: Other resources – Without change volume and cost tables

ADDITIONAL - Volume									
2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
-0.25	-0.25	-0.25	-0.25	-0.25	0	0	0	0	0
150	140	130	120	100	0	0	0	0	0

ADDITIONAL - Cost									
2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
-£25,000.00	-£25,000.00	-£25,000.00	-£25,000.00	-£25,000.00	£0	£0	£0	£0	£0
£3,000.00	£2,800.00	£2,600.00	£2,400.00	£2,000.00	£0	£0	£0	£0	£0

Figure 33: Other resources – Additional volume and cost tables

Important notes on adding other resource costs:
- If the same type of other resource is associated with different agencies then a separate cost will have to be added for each agency/other resource combination.
- If there are similar resource types associated with the same agency, but the cost associated with each is different, then the user should differentiate between them.
- The user should make sure that when a unit cost is added, the right agency/other resource combination is selected before inserting the costs. For example, if "Building (rent)" has been added to the Police on the other resource sheet the user should make sure that "Police" in the agency list and "Building (rent)" in the other resource list on the **Edit Unit Costs** button.
- The user can enter a single set of overall cost figures for each agency, for example "Police resources". In this case the user should still create a resource type called "Other resource", for example, for the relevant agencies. However, instead of filling in the **Edit Unit Costs** form, the user should then enter the total costs directly into the relevant white cells generated in the total cost tables. The user should not write directly into the yellow cells as they do not feed through to the summary report.

Removing other resources

In order to remove a type of other resource associated with a particular agency from the tables the user should first click on the **Add/Remove Other Resource** button, then:

Select Agency → Select Resource → Click "Remove"

2.4   Summary Report

A different summary report will be displayed depending on whether the **Break-Even Report** or **Cost Per Offender Report** has been selected in the **Setup** tab. Each type of summary report includes a range of statistics and charts produced from the information that has been entered. For both types of summary report the colour coding in the cells has been set such that positive values are in red and negative values are in green. Consequently, when conducting **Break-Even Analysis**, which considers the variation in costs between two offender management regimes, savings will appear in green, and increasing costs will appear in red.

When **Break-Even Report** is selected on the **Setup** tab, the **Summary Break-Even Report** tab should be visible. It will produce a summary break-even analysis report based on the data the user has entered.

Figure 34: Break-even report front page

Present Value of Costs - The first table shows the present value (PV) of the staff costs, other resource costs and total costs associated with introducing IOM over the timeframe considered, relative to the date entered in the **Date of Change** box on the **Setup** page. The future stream of costs over the time frame for which data has been entered is discounted by the **Discount Rate** set in the **Setup** page. Where costs are reported in present value terms, it means that future costs are reduced to account for the fact that we value the future less than the present[4]. The way to interpret the PV is that the costs are presented in relation to the year of change, in prices that relate to the price year chosen (which all the data should have been entered in). For example, if the year of change was 2009 and the costs were in 2009 constant prices, the estimated PV values could be said to be values in relation to 2009, in 2009 prices.

---

[4] For additional information on how to interpret these results, please consult the accompanying handbook and the HMT Green Book.

Alongside the **Present Value Table** on the first page of the **Summary Break-Even Report** there is an additional **Break-Even Table**. This shows the total number of crimes that need to be prevented over the periods for which data has been entered. The table will only report values for those crimes that were selected in the **Setup** page and importantly, this table will only display values if **ADDITIONAL** crimes have to be prevented to break-even over the whole period.

The first set of charts shows the **Present Value of Costs** statistics graphically for each of the different agencies over the periods considered.

Cost summary – This section and the associated charts show the annual costs to each agency. When viewing the **Summary Break-Even Report**, the **Cost Summary** table will show the variation in costs between the 'with' and 'without' change arrangements for each of the different agencies. The charts will display the cost variation, as proportions of the total cost variation generated by the change in regime, and as changes in magnitude of cost/saving over time. The **Cost Summary** chart on the bottom-right of page 2 of the **Summary Break-Even Report** will display coloured circles if an agency experienced an increase in costs in a particular period. If an agency experiences a saving, this is always displayed as a white circle in this chart.

At the bottom of the summary report, three tables can be found relating to the **Breakeven Crime Breakdown**. The first of these tables report the additional volume of each crime that would have to be stopped in each time period in order for the savings from these reduced crimes to outweigh the additional costs (staff and other resource combined), assuming that all the additional costs were spent trying to prevent these crimes. The crimes displayed in these tables depend on the selections made in the **Setup** page.

Break Even Crime Breakdown					
	2009	**2010**	**2011**	**2012**	**2013**
STAFF BASED					
Burglary - In a Dwelling	25.4	31.7	31.7	31.7	31.7
Personal - Robbery	16.9	14.1	14.1	14.1	14.1

Figure 35: Crime breakdown in the break-even report

The next two tables then split the additional costs into those that are staff and those that are other resources, and states how many crimes would have to be saved in order to outweigh each of these different types of costs.

If additional crimes need to be prevented in order to break-even, these will be displayed in red in the corresponding period where the rise in costs is

experienced. If there is no increase in costs, then the IOM framework has broken-even (in that period).

Although we cannot prevent a fraction of a crime, the tool will display results to one decimal place.

3.　Cost per managed offender

3.1　Setup

On the **Setup** tab, the first thing that must be selected is whether the user is interested in conducting break-even analysis or cost per offender analysis If the user is interested in cost per offender analysis, **Cost Per Offender Report** should be selected. The worksheet tabs available will change depending on which analysis has been selected.

The yellow summary report tab relating to the analysis chosen should appear at the bottom of the window. If it has not appeared, the preferred analysis should be reselected.

Partnership	Barking and Dagenham
Partnership code	H01B
Region	London

Options	
Type of Cost of Crime	Average Cost (£) 2010
Date of Change	01 Jun 2013
⦿ Break-Even Report	⦿ Cost Per Offender Report
Notes	

Figure 36: Analysis selection

The **Setup** tab will allow the user to make a number of choices in order to customise their cost per managed offender analysis.

The user should select the appropriate **Partnership** from the dropdown box. The associated **Partnership code** and **Region** will then appear in the relevant boxes.

Partnership	Barking and Dagenham
Partnership code	H01B
Region	London

Figure 37: Partnership selection

Next, there are a number of other options that need to be chosen. The user **MUST** make these selections **BEFORE** filling in any information in the other tabs.

Options	Explanation
Unit of Time	To produce monthly analysis **Monthly Cost (£)** should be selected. To produce a report based on annual costs **Annual Cost (£)** should be selected. The spreadsheet allows for 10 periods to be considered, and these will reflect whether monthly or annual analysis has been chosen. The user does not have to use all 10 periods.
Financial/Calendar	If the **Annual Cost (£)** option is chosen, the user should then select how the years are displayed. If annual costs is selected, but the user would like to use 12 month periods that are not calendar or financial years (e.g. July to June), the user may wish to select calendar year and note along with any analysis produced that the years relate to July to June, for instance, not calendar years. After changing the **Financial/Calendar** option, the user should reselect the **Price Year** it is updated.
Price Year	The user should make sure that all the costs entered into the **Staff** and **Other Resources** tabs relate to the chosen price year. This is known as having the costs in 'constant prices'. For addition information on 'constant prices' the user should consult the accompanying handbook.
Date of Change	This should correspond with the introduction of IOM. If the analysis is annual, the first month of the 12 month period being considered should be entered. Enter the start date in the format DD/MM/YYYY. The spreadsheet allows for 10 time periods and for cost per offender analysis, the user should decide how many periods before and after the **Date of Change** are considered. To do this the user should first enter the **Date of Change** and then use the scroll bar at the bottom of the weights table to adjust where the **Date of Change** occurs. For example, if IOM began in 2009 then the user may want to consider the cost per offender in each year from 2004 to 2008 before IOM and 2009 to 2013 after implementation (including the year of change). In this case the user would move the scroll bar to the right until 2009 is in the middle of the sequence of years.

	The user MUST adjust the scroll bar BEFORE starting to input any data.

Options	
Date of Change	01 Jan 2009
⊙ Break-Even Report	⊙ Cost Per Offender Report
Notes	

Figure 38: Options selection (a)

Unit of Time	Annual Cost (£)
Price year	2010
Financial/Calendar	Calendar years

Figure 39: Options selection (b)

Additional information on the **On-cost Mark up** is available in section 2.1 above. However, it is not advised that this is changed without specific justification.

For cost per offender analysis, the user will also have to define the cohorts of offenders that were managed pre-change and post-change. The user can do this using the **Select Offender Types** section of the **Setup** page. The user should select the types of offenders that are relevant to the analysis in either the pre or post change scenario. For example, if a cohort of statutory offenders was managed pre change and, in addition, a cohort of problem drug users was managed under IOM, the user should select both types of offenders in the **Select Offender Types** section.

Select Offender Types		Edit Offender Names
☐ Type 1	0%	
☐ Type 2	0%	
☐ Type 3	0%	
☐ Type 4	0%	
☐ Type 5	0%	
☐ Type 6	0%	

Figure 40: Offender selection

The groups of offenders are listed as types 1 to 6. These groups can easily be changed to make them correspond to the cohorts managed in an area. To change the offender types the user should click on the **Edit Offender Types** button. The user should then:
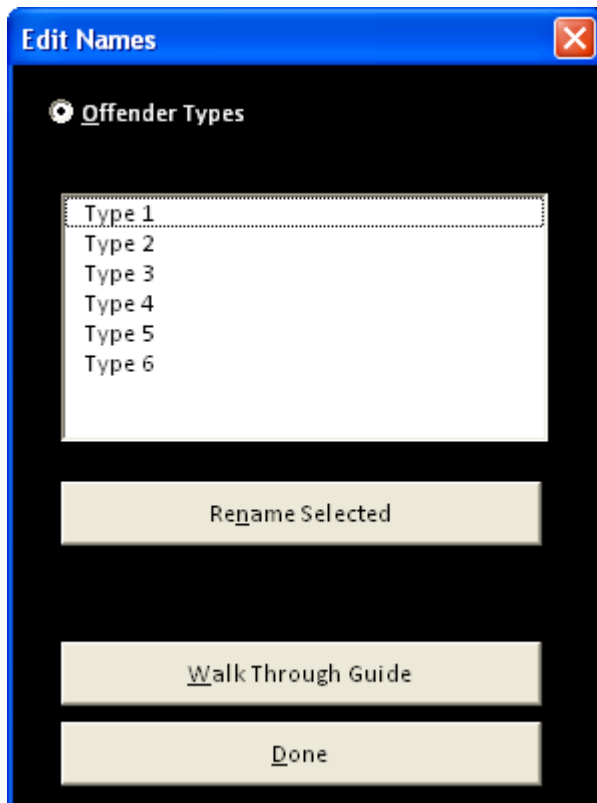
Select "Offender Types"

Figure 41: Select the offender category to rename.

→ Select name of offender type → Select "Rename Selected" → Change name in text box [name should be no longer than 17 characters]→ "Accept Change".
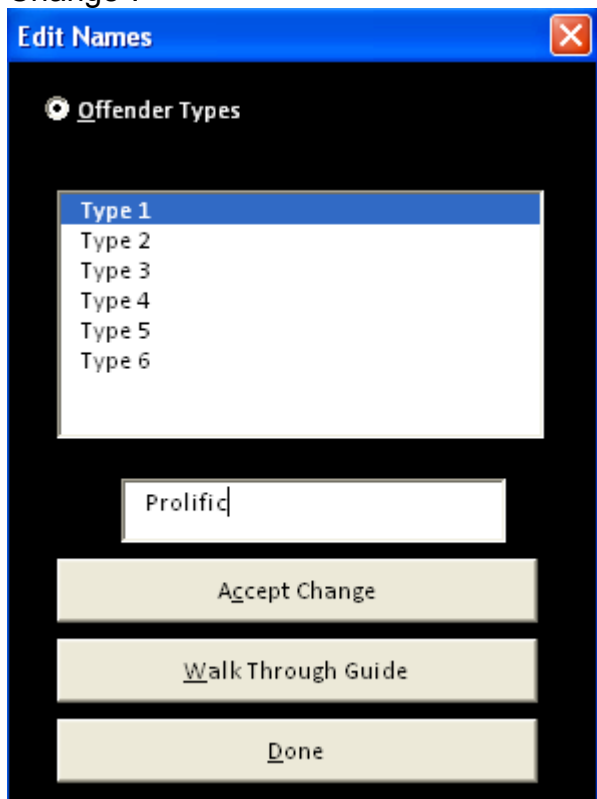

Figure 42: Rename offender category and accept the change

For example, if through IOM two cohorts are managed - prolific offenders and non-statutory offenders – the user can amend the **Offender Types** accordingly.

Note: The user will not be able to leave offender type categories empty. The tool will maintain six spaces, although the user does not need to use all of them.

Select Offender Types	
☑ Statutory	
☑ Prolific burglars	
☐ Type 3	
☐ Type 4	
☐ Type 5	
☐ Type 6	

Figure 43: Select all the types of offenders relevant to either the pre or post change scenario

When the user selects the types of offenders, the associated yellow boxes will remain empty until the **Offender Profiles** tab has been filled in. Additional information on the offender types will also be required in the **Offender Volumes** tab.

When the user selects **Cost Per Offender Report** the crime weights on the **Setup** tab become irrelevant and the budget weight is automatically selected in the weights table. When the budget weight is selected, the split of the offender management costs between different cohorts of offenders is based on the proportions entered in the **Offender Profiles** tab.

For cost per managed offender analysis, the user will also have to select the **Scope**. This allows the user to choose whether the **Cost Per Offender Report** will show the pre-change costs or post change costs. These should be considered separately as the types of offenders managed, and thus the split of the offender management budget between groups of offenders is likely to be different before and after the introduction of IOM. If the user wants to look at the cost per offender pre-change "**Pre-change**" should be selected. Similarly, to produce a report on post-change cost per offender the user should select "**Post-change**". The results of the pre and post change reports can then be compared.

Variables	
On-Costs Mark up	24%
Discount Rate	3.5%
HMT Discount Rate	3.5%
Scope	Pre-Change

›>> ... <<‹

Figure 44: Scope

3.2 Staff

The spreadsheet allows the user to consider 10 time periods. For cost per offender analysis, the user should have decided on the **Setup** tab how many periods are being considered before the change to IOM and how many after. The user does not have to use all 10 periods.

For cost per offender analysis, the user should be considering the **Pre-change** scenario costs and the **Post change** scenario costs. It will be necessary to enter information on the number of staff and the cost of each of these staff in each of the periods under previous offender management arrangements and the number and cost of staff in each of the periods under IOM arrangements. The user should only fill in the time periods in the **Pre change – Number of staff** table associated with each period being considered before the introduction of IOM. Similarly, the user should only fill in the time periods in the **Post change – Number of staff** table associated with each period being considered post change. For example, if IOM was introduced in 2009 and the user is considering 5 periods before (2004 to 2008) and 5 periods after and including implementation (2009 to 2013) then the user should only fill in the data in periods 2004 to 2008 in the **Pre change – Number of staff** table and periods 2009-2013 in the **Post change – Number of staff** table.

The staff volumes and costs for analysis of cost per managed offender should be entered in the same way as for break-even analysis. Additional information on how to add staff types and costs is available in section 2.2 above. However, one specific difference will be that the **Transition Cost** which will be added to the **Date of Change** period.

Important note: All the staff cost data associated with each period before and after the change can be entered into the same staff cost sheet; however, the user should produce a separate **Summary Offender Cost Report** for each scenario. The user can select which scenario to focus on using the **Scope** variable on the **Setup** tab. As long as all the other variables on the **Setup** tab are chosen BEFORE the cost data are entered, the user can switch between pre-change and post change **Summary Offender Cost Report** after the cost data are entered.

STAFF COSTS		TO INSERT A NEW ENTRY PLEASE USE THE BUTTONS ON THE LEFT									
Add/Remove Staff		**DO NOT ENTER INFORMATION INTO YELLOW BOXES, AS THESE WILL NOT BE FED INTO THE SUMMARY REPORTS**									
Edit Unit Costs		**Note:** As a general rule, if a cell is highlighted in yellow or blue, then it contains a formula. Avoid changing the content of these cells unless you are sure that you want to override the formula; the "Walk Through Guide" will explain when this might be appropriate. If a cell is white, then you may amend its content. Where relevant, to expand and collapse sections on a sheet use the "+" and "-" signs on the left-hand side of the sheet.									
Edit Staff and Agency Names											

PRE-CHANGE - Number of staff

		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
1. Police	Staff										
	constable	0.5	0.5	0.5	0.5	0.5					
2. Probation	Staff										
	probation officer	2	2	2	2	2					
3. Prison	Staff										
4. Local Authority	Staff										
5. Youth Offending	Staff										
6. Offender Health	Staff										
7. Drug Services	Staff										
	drugs worker										
8. Voluntary Sector	Staff										
9. Other (eg Housing)	Staff										

PRE-CHANGE - Cost of staff

		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
1. Police	Staff										
	constable	£21,736.43	£21,736.43	£21,736.43	£21,736.43	£21,736.43	£0.00	£0.00	£0.00	£0.00	£0.00
2. Probation	Staff										
	probation officer	£74,524.90	£74,524.90	£74,524.90	£74,524.90	£74,524.90	£0.00	£0.00	£0.00	£0.00	£0.00
3. Prison	Staff										
4. Local Authority	Staff										
5. Youth Offending	Staff										
6. Offender Health	Staff										
7. Drug Services	Staff										
	drugs worker	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00
8. Voluntary Sector	Staff										
9. Other (eg Housing)	Staff										

Figure 45: Staff - Pre-change staff volumes and costs tables

POST-CHANGE - Number of staff

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
					2	2	2	2	2
					3	3	3	3	3
					0.5	0.5	0.5	0.5	0.5

POST-CHANGE - Cost of staff

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
£0.00	£0.00	£0.00	£0.00	£0.00	£91,945.72	£86,945.72	£86,945.72	£86,945.72	£86,945.72
£0.00	£0.00	£0.00	£0.00	£0.00	£111,787.36	£111,787.36	£111,787.36	£111,787.36	£111,787.36
£0.00	£0.00	£0.00	£0.00	£0.00	£14,315.61	£9,315.61	£9,315.61	£9,315.61	£9,315.61

Figure 46: Staff - Post-change staff volumes and costs tables

3.3   Other resource costs

The spreadsheet allows the user to consider 10 time periods. For cost per offender analysis, the user should have decided on the **Setup** tab how many periods occur before the change to IOM and how many after. The user does not have to use all 10 periods.

For cost per offender analysis, the user should be considering the **Pre-change** scenario costs and the **Post change** scenario costs. It will be

necessary to enter information on the volume of other resources and the cost of each resource in each of the periods under previous offender management arrangements and the volume and cost of other resources in each of the periods under IOM arrangements. The user should only fill in the time periods in the **Pre-change – Volume** table associated with each period being considered before the introduction of IOM. Similarly, the user should only fill in the time periods in the **Post-change – Volume** table associated with each period being considered post change. For example, if IOM was introduced in 2009 and the user is considering 5 periods before (2004 to 2008) and 5 periods after and including implementation (2009 to 2013) then the user should only fill in the data in periods 2004 to 2008 in the **Pre-change – Volume** table and periods 2009-2013 in the **Post-change – Volume** table.

The other resource volumes and costs for analysis of cost per managed offender should be entered in the same way as for break-even analysis. Additional information on how to add other resource types and costs is available in the section 2.3 above. However, one specific difference will be that the **Transition Cost** which will be added to the **Date of Change** period.

Important note: All the other resource cost data associated with each period before and after the change can be entered into the same other resource cost sheet; however, the user should produce a separate **Summary Offender Cost Report** for each scenario. The user can select which scenario to focus on using the **Scope** variable on the **Setup** tab. As long as all the other variables on the **Setup** tab are chosen BEFORE the cost data are entered, the user can switch between pre-change and post change **Summary Offender Cost Report** after the cost data are entered.

Figure 47: Other resources - Pre-change volumes and costs tables

POST-CHANGE - Volume									
2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
					0.5	0.5	0.5	0.5	0.5
					0.1	0.1	0.1	0.1	0.1
					100	150	150	150	100

POST-CHANGE - Cost									
2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
£0.00	£0.00	£0.00	£0.00	£0.00	£50,000.00	£50,000.00	£50,000.00	£50,000.00	£50,000.00
£0.00	£0.00	£0.00	£0.00	£0.00	£20,000.00	£10,000.00	£10,000.00	£10,000.00	£10,000.00
£0.00	£0.00	£0.00	£0.00	£0.00	£1,500.00	£1,500.00	£1,500.00	£1,500.00	£1,000.00

Figure 48: Other resources - Post-change volumes and costs tables

3.4   Offender Volumes

The **Offender Volumes** tab is only relevant for cost per managed offender analysis.

CLIENT VOLUMES

Offender type			2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
1. Police												
	Statutory		100	100	100	100	100					
	Problem drug user											
	Type 3											
	Type 4											
	Type 5											
	Type 6											
	Total		100	100	100	100	100	0	0	0	0	0
2. Probation												
	Statutory		200	200	200	200	200					
	Problem drug user											
	Type 3											
	Type 4											
	Type 5											
	Type 6											
	Total		200	200	200	200	200	0	0	0	0	0
3. Prison												
	Total		0	0	0	0	0	0	0	0	0	0
4. Local Authority												
	Total		0	0	0	0	0	0	0	0	0	0
5. Youth Offending												
	Total		0	0	0	0	0	0	0	0	0	0
6. Offender Health												
	Total		0	0	0	0	0	0	0	0	0	0
7. Drug Services												
	Statutory											
	Problem drug user											
	Type 3											
	Type 4											
	Type 5											
	Type 6											
	Total		0	0	0	0	0	0	0	0	0	0
8. Voluntary Sector												
	Total		0	0	0	0	0	0	0	0	0	0
9. Other (eg Housing)												
	Total		0	0	0	0	0	0	0	0	0	0

Figure 49: Offender volumes pre-change

POST-CHANGE													
Offender type		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
1. Police													
	Statutory						200	200	200	200	200
	Problem drug user										
	Type 3										
	Type 4										
	Type 5										
	Type 6										
	Total	0	0	0	0	0	200	200	200	200	200
2. Probation													
	Statutory						200	200	200	200	200
	Problem drug user						100	100	100	100	100
	Type 3										
	Type 4										
	Type 5										
	Type 6										
	Total	0	0	0	0	0	300	300	300	300	300
3. Prison													
	Total	0	0	0	0	0	0	0	0	0	0
4. Local Authority													
	Total	0	0	0	0	0	0	0	0	0	0
5. Youth Offending													
	Total	0	0	0	0	0	0	0	0	0	0
6. Offender Health													
	Total	0	0	0	0	0	0	0	0	0	0
7. Drug Services													
	Statutory						50	50	50	50	50
	Problem drug user						100	100	100	100	100
	Type 3										
	Type 4										
	Type 5										
	Type 6										
	Total	0	0	0	0	0	150	150	150	150	150
8. Voluntary Sector													
	Total	0	0	0	0	0	0	0	0	0	0
9. Other (eg Housing)													
	Total	0	0	0	0	0	0	0	0	0	0

Figure 50: Offender volumes post-change

This tab will allow the user to insert the volume of each type of offender associated with each agency both pre and post change. The "+" signs at the left-hand side of the tab can be used to expand the sections to allow the user to enter the volumes.
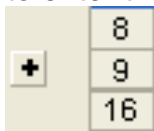

Figure 51: Toggle this button to expand and minimise agency's sections

Care will have to be taken in defining the relevant volume of offenders for the analysis. For example, is the relevant volume of offenders those entering offender management in any given period, or a snapshot of the volume managed on a specific date in a given period etc?

The user can define the name for each managed offender type using the **Edit Offender Types** button on the **Setup** tab. If only one cohort of offenders is managed within an area, or if the user does not wish to differentiate between groups of offender (i.e. the user is only interested in total offenders), then only one group need be defined, for example, managed offenders. The user can define up to five different types of offenders (e.g. statutory offenders, PPOs, non-statutory etc).

When entering the volume of offenders in the **Pre-change** table, the user should only fill in the volumes of offenders in the relevant pre-change periods. Similarly, the user should only fill in the relevant periods in the **Post-change** table.

The user should ensure that where more than one offender type has been defined, a weight is given to each type under both the pre and post change scenarios in the **Offender Profile** tab.

Important notes:
- The user should be very clear about how the volume of offenders used in this analysis is defined and this should be consistent throughout (e.g. the average volume of offenders handled by each agency). The definition used should be made explicit when reporting the analysis.
- It is recommended that the user records the definition of the 'offender unit' in the **Notes** box on the **Setup** page.
- If the analysis is concerned with the volume of offenders dealt with by each agency, the user should not add these volumes together if the same offenders are handled by multiple agencies as this will lead to double counting the total volume of offenders.
- Examples of a single offender unit might be:
    i. The volume of offenders being managed on a given date within each period e.g. the first day of each month.
    ii. The average number of offenders managed over a month.

3.5 Offender Profiles

The **Offender Profiles** tab is only relevant for cost per managed offender analysis.

Budget Split Pre-Change (%)

	Average Annual Spend	Prolific	DMU					Total
1. Police	£47,236.43	100%	0%					100%
2. Probation	£55,893.68	100%	0%					100%
3. Prison	£0.00							
4. Local Authority	£0.00							
5. Youth Offending	£0.00							
6. Offender Health	£0.00							
7. Drug Services	£0.00							
8. Voluntary Sector	£0.00							
9. Other (eg Housing)	£0.00							
BUDGET	£103,130.11	100%						100%
Total		100%						100%

Budget Split Post-Change (%)

	Average Annual Spend	Prolific	DMU					Total
1. Police	£81,672.86	60%	40%					100%
2. Probation	£70,556.58	75%	25%					100%
3. Prison	£0.00							
4. Local Authority	£0.00							
5. Youth Offending	£0.00							
6. Offender Health	£0.00							
7. Drug Services	£0.00							
8. Voluntary Sector	£0.00							
9. Other (eg Housing)	£0.00							
BUDGET	£152,229.44	67%	33%					100%
Total		67%	33%					100%

Figure 52: Offender profile page

This tab will allow the user to make some allowance for how the offender management budget is split between different cohorts of managed offenders for each of the different agencies, pre and post change.

All the types of offenders relevant to either the pre-change scenario or the post-change scenario should be selected on the **Setup** tab in order to allow the user to enter the required information on the **Offender Profiles** tab.

The **Budget Split Pre-Change (%)** table allows the user to insert information on how the offender management budget is split between offenders pre-change. If the user has only defined one type of offender (e.g. managed offenders) a weight of 100 per cent should be included as the proportion of the offender management budget allocated to that group of offenders, for each of the different agencies. If an area manages more than one cohort of offenders pre-change, the user should insert how the budget for each agency is split between these groups (e.g. 60% on Type 1 offenders and 40% on Type 2 offenders). If the user has defined more than one type, but only one is relevant to the pre-change environment, the weight attached to the relevant offender type should be 100 per cent, and the weight attached to the irrelevant types should be 0 per cent.

For each agency involved, the corresponding row in the table should add up to 100%.

Similarly, the **Budget Split Post-Change (%)** table allows the user to insert information about how the offender management budget is split between offenders in post-change periods. If the user has only defined one type of offender (e.g. managed offenders) a weight of 100 per cent should be included as the proportion of the offender management budget allocated to that group of offenders for each of the different agencies. If an area manages more than one cohort of offenders post-change, the user should insert how the budget for each agency was split between these groups (e.g. 45% on Type 1 offenders, 30% on Type 2 offenders and Type 3 offenders). Again, for each agency involved, the corresponding row in the table should add up to 100%. If the user has defined more than one type, but only one is relevant to the post-change environment, the weight attached to the relevant offender type should be 100 per cent, and the weight attached to the irrelevant types should be 0 per cent.

Important notes:
- Care should be taken when entering the proportions when different cohorts are managed in the pre and post change scenarios.
- This analysis does not allow for any consideration to be made of the relative prolificness of each type of offender at committing specific crimes.
- It assumes that the proportion of budget spent on each group of offenders managed pre-change is the same in each period. Similarly, it assumes that the proportion of budget spent on each group of offenders post-change is the same in each period.
- The user should make sure that for those offender types not in use, the columns are empty. It is not advised to delete these columns in case the user would like to alter the number of offender types in future.

3.6   Summary Report

A different summary report will be displayed depending on whether the **Break-Even Report** or **Cost Per Offender Report** has been selected in the **Setup** tab. Each type of summary report includes a range of statistics and charts produced from the information that has been entered. For both types of

summary report the colour coding in the cells has been set such that positive values are in red and negative values are in green. In the case of the **Summary Offender Cost Report**, costs appear in red.

When **Cost per Offender Report** is selected on the **Setup** tab, the **Summary Offender Cost Report** tab should be visible. It will produce a summary report on either the costs per offender under the pre-change arrangements or the cost per managed offender under the post change arrangements, depending on the **Scope** selection made on the **Setup** page.

Figure 53: Cost per managed offender report front page

The first table of this report presents the average per period costs which should be presented in terms of the chosen constant price year. For example, if the unit of time considered is monthly then the costs presented will be the average monthly costs in a given years prices, similarly, if the unit of time chosen is annual the first table will present the average annual costs in the given years prices. Also included in the first table is the average cost per offender over the time frame considered, by offender group.

Cost per Offender					
	2004	2005	2006	2007	2008
1. Police	£2,484.16	£2,484.16	£2,484.16	£1,987.33	£1,987.33
Statutory	£2,484.16	£2,484.16	£2,484.16	£1,987.33	£1,987.33
Prolific burglar					
Type 3					
Type 4					
Type 5					
Type 6					
2. Probation					
Statutory					
Prolific burglar					
Type 3					
Type 4					
Type 5					
Type 6					
3. Prison					
Statutory					
Prolific burglar					
Type 3					
Type 4					
Type 5					
Type 6					

Figure 54: Cost per offender table in the summary report

Cost summary – This section and the associated charts show the annual costs to each agency. When **Pre-change** or **Post change** is selected on the **Setup** tab, the **Cost Summary** will show the costs associated with either the pre or post change environment for each of the different agencies. The Cost Summary chart on the bottom-right of page 2 of the **Summary Offender Cost Report** will display coloured circles if an agency experienced a cost in a particular period.

Average cost per offender – This section and the associated charts show the average cost per offender associated with either the pre or post change environment. There is a chart showing how the cost per offender varies by the different agencies engaged in offender management, and by the different types of offenders managed. Subsequent tables display the average cost per offender in each period, split by the offender type.

Note: In order for the cost per offender values to be generated, at least one offender type must be selected on the **Setup** page.